

**REMARKS**

Reconsideration of this application, as presently amended, is respectfully requested. Claims 5-19 are pending in this application. Claims 5-7 and 17 stand rejected. Claim 16 was objected to as being dependent upon a rejected base claim, but was indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 8-15, 18 and 19 were withdrawn from consideration as being directed to a non-elected invention.

**Claim Rejections-35 U.S.C. §112**

Claim 5 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. For the reasons set forth in detail below, this rejection, to the extent it is considered to apply to the currently amended claims, is respectfully traversed.

In the §112, second paragraph, rejection the Examiner asserts:

“the language of the claim is confusing with regard to the output channels. The claim recites ‘attenuating an amplitude of the original sound of one channel is outputted to the one channel’ whereby ‘the one channel’ is vague. In addition, the claim recites ‘outputted to the other channel’ indicating the use of two output channels, but such language being absent from the claim. Lastly, the language ‘said processed sound being formed by a process where an amplitude attenuation processed sound formed by ...’ is unwieldy.”

In response, claim 5 has been amended to clarify the claim language. More particularly, claim 5 has been amended to clarify the “one channel” and “another channel” as first and second

channels, respectively. Further, claim 5 has been amended to place the claim in preferred format for a method claim according to U.S. practice. The dependent claims have been amended such that they recite the invention in a manner consistent with the amendments to claim 5.

In view of the above amendments and remarks, reconsideration and withdrawal of the rejection under §112, second paragraph, are respectfully requested.

**Amendment to Claim 16**

As noted above, claim 16 was indicated to be allowable. Further, claim 16 was not rejected under §112, second paragraph. However, claim 16 has been amended to improve form by eliminating any lack of antecedent basis in the claim. Specifically, claim 16 originally recited “said process patterns” and “the processing time”. However, “process patterns” are recited in claim 7 and claim 16 did not depend from claim 7. Further, “processing time” was not recited in any claim from which claim 16 depends. Accordingly, claim 16 has been amended to obviate these discrepancies. Entry and approval of the changes to claim 16 are respectfully requested.

**Claim Rejection 35 U.S.C §103**

Claims 5-7 and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over **Beller et al.** (USP 5,895,220) in view of **Kamada et al.** (USP 5,995,631). For the reasons set forth in detail below, this rejection is respectfully traversed.

**Beller et al.** discloses a system for audio-phonatory training that varies an amplitude  $A_s$  and/or frequency  $F_s$  of a parametric signal  $P_s$  as a function of the amplitude  $A_e$  or frequency  $F_e$

of an audio frequency signal  $O_e$  of natural sounds to produce a pleasant parametric signal for  $P_s$  for re-education purposes (see, e.g., col. 3, lines 48-54).

The Examiner relies on col. 9, line 24 – col. 11, line 18 of **Beller et al.** for teaching a training method wherein an original sound (natural sound) is alternated with a parametric sound (see, e.g., col. 10, lines 63-67). The Examiner considers the parametric signal to be a “processed sound” and the natural sound to be an “original signal” (see, e.g., Office Action, page 3, lines 4-7). **Beller et al.** also teaches that the trainee may receive the natural sound and the parametric sound in stereo, i.e., in the left ear and the right ear, respectively (see col. 11, lines 12-15).

The Examiner recognizes that **Beller et al.** do not “disclose that the processed sound is formed by attenuating one channel signal and superimposing that signal to the other channel and outputting the attenuated channel signal and the superimposed channel signal.” See Office Action, page 3, lines 5-7. Applicant agrees with the Examiner that **Beller et al.** does not disclose or suggest the above claimed features.

Furthermore, in addition to the features noted above that the Examiner recognizes are not disclosed by **Beller et al.**, it is submitted that **Beller et al.** also do not disclose “*having the trainee alternately listen to the first and second amplitude attenuated processed sounds output to the first and second channels, respectively, ...*”. It follows that if **Beller et al.** do not disclose forming the second amplitude attenuated processed sound, as recognized by the Examiner, then **Beller et al.** cannot disclose having a trainee alternately listen to the original sounds and the first and second amplitude attenuated processed sound during the training method.

The Examiner relies on the **Kamada et al.** reference to teach the features missing from **Beller et al.**, citing Fig. 39 of **Kamada et al.** Fig. 39 of **Kamada et al.** disclose an embodiment wherein a left signal derived from a crosstalk canceling means 230 is added to the output signal of an amplifier 200. Further, a right signal derived from the crosstalk canceling means 230 is added to the output of another amplifier 210.

However, it is respectfully submitted that **Kamada et al.** do not alleviate any of the deficiencies of **Beller et al.**

Specifically, Fig. 39 of **Kamada et al.** disclose an embodiment wherein a left signal derived from a crosstalk canceling means 230 is added to the output signal of an amplifier 200. Further, a right signal derived from the crosstalk canceling means 230 is added to the output of another amplifier 210. The Examiner asserts “Kamada et al. discloses a method... that attenuates a signal via [an amplifier] 200 in one channel Lin and superimposes the signal to the signal Rin at adder 212 in other channel.” See Office Action, page 3, lines 8-10.

First, it is respectfully submitted that the Office Action’s interpretation of **Kamada et al.** is not consistent with the **Kamada et al.** disclosure. Specifically, contrary to the Examiner’s assertion, the signal from amplifier 200 is **not** superimposed on (or added/subtracted from) the signal Rin at adder 212. Instead, as indicated in col. 37, lines 46-53, the output signal of the amplifier 200 is added *by adder 202* to a *left signal* derived from the crosstalk canceling means 230. As shown in Fig. 8 of **Kamada et al.**, the left signal Lm1 derived from the crosstalk canceling means is a signal formed from both the right Rin and left Lin inputs. Thus, the output of the amplifier 200 is not superposed on the signal Rin.

Second, it is respectfully submitted that **Kamada et al.** does not disclose or suggest *“forming a second amplitude attenuated processed sound by superposing the first amplitude attenuated processed sound to an original sound of a second channel”*.

Specifically, based on the Examiner’s comments in the Office Action, the Examiner considers the signal output from amplifier 200 to correspond to the claimed “first amplitude attenuated processed sound” that is superposed to an original sound of the second channel (see Office Action, page 3, lines 8-10). Thus, if the signal output from amplifier 200 is considered the *“first amplitude attenuated processed sound”*, then this signal is not superposed on the original sound of a second channel. As shown in Fig. 8, the crosstalk canceling means produces a first left signal Lm1 and a first right signal Rm1, which are not original sounds of any channel.

In view of the above remarks, it is respectfully submitted that **Kamada et al.** does not alleviate any of the deficiencies of **Beller et al.**, and therefore the combination of references does not result in the claimed invention. Reconsideration and withdrawal of the rejection of claim 5, and claims 6-7 and 17 which depend therefrom, under §103 are respectfully requested for at least the above reasons.

Finally, it is submitted that the motivation provided for combining the **Beller et al.** and **Kamada et al.** references is not taught or suggested by the references or what is known in the art (which is normally demonstrated by a reference), as required under §103. Specifically, the motivation for combining the references offered in the Office Action is “for the purpose of training the auditory sense of a person using sound localization which improves its effectiveness.”

First, the **Kamada et al** reference is related to improving sound quality in acoustic devices such as electronic musical instruments, game machines, and sound mixers, and is completely unrelated to training the auditory sense of a person. Second, none of the references suggest or provide motivation that “sound localization” improves the effectiveness of auditory sense training. Thus, it is submitted that there is no motivation to combine the references, and that the combination of references is the result of improper hindsight reconstruction of the invention based on applicant’s teachings.

Accordingly, the rejection under §103 is improper and should be withdrawn for this additional reason.

#### Claim 6

The Examiner has asserted that the features recited in claim 6 are *inherent* in the references (see Office Action, page 3, line 13).

As discussed I detail below, it is respectfully submitted that the features recited in claim 6 are not inherent in the references. More specifically, inherent disclosure requires that the missing descriptive material is *necessarily* present in the prior art, not merely probably or possibly present in the prior art. See *In re Robertson*, 169 F.3d 743, 745, 49 USPQ 2d, 1949, 1950-51 (Fed. Cir. 1999). Regarding inherency, MPEP 2163 II(ii)(b) states:

“To establish inherency, the *extrinsic evidence* ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not

sufficient.” [emphasis added] *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)

It is submitted that the features recited in claim 6 are not *necessarily* present in the **Beller et al.** and **Kamada et al.** references. Therefore, as required by the MPEP §2163 II(ii)(b), the Examiner is respectfully requested to provide extrinsic evidence that the missing description of the features recited in claim 6 are inherent in the references.

### **CONCLUSION**

In view of the foregoing amendments and accompanying remarks, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.

If the Examiner believes that there are issues remaining to be resolved in this application, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite and complete prosecution of this case.

Application No. 10/743,789  
Art Unit: 2615

Amendment under 37 C.F.R. §1.111  
Attorney Docket No.: 981091A

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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